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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,608	09/06/2006	Arnd Ritz	DE040075	7788
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EXAMINER ROY, SIKHA				
ART UNIT 2879		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,608

Applicant(s)

RITZ, ARND

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 0906
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

The Preliminary Amendment, filed on September 6, 2006 has been entered and acknowledged by the Examiner.

Claims 1-10 are pending in the instant application.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The abstract of the disclosure is objected to because of the use of the legalese term 'comprising'. Correction is required. See MPEP §608.01(b).

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for temperature controlling by providing multilayer interference filter on the burner wall, does not reasonably provide enablement for how the region with a lowest temperature and a region with a highest temperature establish themselves at the inner and outer contour of the burner wall during operation. The

specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make use of the invention commensurate in scope with these claims.

Claims 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for temperature controlling by providing multilayer interference filter on the burner wall, does not reasonably provide enablement for how the location of the filter is determined so that 'in that location or at least in that location (or not in that location for claim 6) the region with a lowest temperature establishes itself at the outer contour of the burner wall. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make use of the invention commensurate in scope with these claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5 the recitation of 'interference filter is arranged in that location or at least in that location where the region of lowest temperature establishes itself at the outer contour of the burner wall' is not clear because according to claim 1 the region with lowest temperature establishes at the inner contour of the burner wall (region with

highest temperature establishes at the outer contour) and hence renders the claim indefinite. How is this region of lowest temperature at the outer contour of the burner wall?

Regarding claim 6 the recitation of 'interference filter is arranged not in that location where the region of lowest temperature establishes itself at the outer contour of the burner wall' is not clear because according to claim 1 the region with lowest temperature establishes at the inner contour of the burner wall (region with highest temperature establishes at the outer contour) and hence renders the claim indefinite.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,952,768 to Strok et al.

Regarding claim 1 Strok discloses (Fig. 2 col. 2 lines 35-48 col. 3 lines 16-20 col. 4 lines 19-60) a high pressure discharge lamp comprising a burner 26 which has burner wall 32 and a discharge chamber 34 enclosed by the burner wall and a multilayer interference filter 58 provided on a portion of the outer contour of the burner wall where the interference filter 58 reflects towards the discharge chamber mainly light in the

wavelength range of infrared light with causal relationship to the maximum emissive power of the quartz material of the burner wall. Strok discloses the location of the cold and hot regions is dependent on the operating conditions such as the orientation of the arc tube during operation. The recitation of 'wherein a region with a lowest temperature and a region with a highest temperature establish themselves at the inner and the outer contour of the burner wall during operation and in dependence on the mounting position of the lamp' does not contribute to any positive structure and hence no patentable weight has been given.

Regarding claim 2 Strok discloses the multilayer interference filter 58 is characterized in that a layer with a higher refractive index and a layer with a lower refractive index occur in alternation in its structure.

Claim 7 adds no limitation to claim 1 and hence is rejected for the same reason.

Regarding claim 8 Strok discloses (col. 4 lines 20-25) the material of the burner wall is made of quartz and accordingly the interference filter is capable of reflecting mainly infrared light in the wavelength of 2 micron.

Regarding claim 9 Strok discloses a lighting unit comprising the lamp.

Regarding claim 10 Strok discloses (col. 5 lines 37-42) the lamp used in a projection system (optically controlled) in automotive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2879

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,952,768 to Strok et al. as applied to claim1 above, and further in view of USPN 4,652,789 to Kawakatsu et al.

Regarding claim 3 Strok discloses (col. 4 lines 60-64) the layer having lower refractive index comprises SiO_2 and the second layer of higher refractive index than SiO_2 comprises tantalum oxide or titanium oxide.

Strok does not exemplify the layer with high refractive index comprising preferably zirconium oxide (ZrO_2).

Kawakatsu in same field of endeavor discloses (col. 2 lines 28-37) a multilayer infraredreflecting filter composed of plurality of laminated layers in which one layer of high refractive index consisting tantalum oxide, zirconium oxide and the layer with low refractive index consisting of silica.

The selection of known material for a known purpose is considered to be within the skill of the art. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute zirconium oxide for the layer with high refractive index as disclosed by Kawakatsu for tantalum oxide of Strok since selecting known material for a known purpose is within the skill of the art.

Regarding claim 4 Strok discloses the second layer of high refractive index is made of tantalum oxide (tantala), titanium oxide(titania).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5,017,839 to Arlt et al. , U.S. Patent Application Publication 2005/0116608 to Haacke et al. and USPN 7,224,107 to Moench et al. disclose use of infrared reflecting multilayer film in an illumination system.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sikha Roy/
Primary Examiner, Art Unit 2879